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Laser's environmental assessment complete

by Eva Hendren, Directed Energy Directorate

KIRTLAND AIR FORCE BASE, N.M. — A recently completed environmental assessment has cleared the way for Air Force Research Laboratory tests that involve Sandia Crest this fall, officials announced Aug 3.

The planned tests for an optical sensor system, conducted by the locally-based Directed Energy Directorate and Kestrel Corporation, will use an infrared light spot that will serve as an optical target for the sensor being tested. Testing will be carried out in September or October of this year. The new optical sensor technology is for passively sensing a remote high-energy laser and target interaction.

In order to simulate an interaction to test the optical sensor at Kestrel Laboratories, a test setup will be placed at a lookout point on the west rim of the Crest where a small, enclosed, low-powered (one watt) laser will be used to create an approximately 20-inch diffuse light spot on a board surface a few feet away. The board, covered with a reflective material will reduce and diffuse the laser's power and light. In order to assess the new technology, the optical sensor system, located about 10 miles away at the Kestrel facilities, will be focused on the board, collecting and analyzing the light.

The testing will be conducted during pre-dawn hours and all equipment used for the experiment will be set up and removed when finished each day. Two Kestrel engineers will be monitoring the equipment at the site during each test. The demonstrations are scheduled to run one or two times per week over a two week period.

According to Michelle Hedrick, a laboratory safety officer, "The test set-up has been determined to have no significant impact on the test environment or workers. The laser used is enclosed in a protective cover, the machine noise is minimal, the impact on the Sandia Crest native flora and fauna is negligible, and there are no hazardous materials used in the testing."

As an added measure, the test series will be coordinated with the Forest Service to ensure minimal disruption of the local environment.

Kestrel Corporation is an Albuquerque-based company specializing in the development of advanced, state-of-the-art imaging, remote sensing, adaptive optics, and wavefront sensing systems for commercial, bio-medical, and government research applications. **@**